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PROLAPSE OF THE WOMB,
WITH ESPECIAL REFERENCE TO THE (SO-
CALLED) HYPERTROPHIC ELONGATION
OF THE SUPRA-VAGINAL PORTION
OF THE CERVIX,

WITH REPORT OF A CASE.

BY

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**PROLAPSE OF THE WOMB, WITH ESPECIAL
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PROLAPSE of the womb may occur in three distinct ways: (a) Simple descent. (b) Descent from hypertrophic elongation of the infra-vaginal portion of the cervix. (c) Descent from hypertrophic elongation of the supra-vaginal portion of the cervix. Without a knowledge of all the kinds of prolapsus, a differential diagnosis of any one of these conditions would be impossible. Therefore, a brief description of each of the above forms may not prove uninteresting.

Simple prolapse, or, as Dr. William Goodell aptly calls it, "substantial descent of the womb," is a sagging down of the uterus as a whole, together with its appendages. The degree of displacement depends upon the weight of the organ and the amount of relaxation of its supports, ligaments, etc. It may be *partial* or *complete*—that is to say, the womb may be either within the vagina, or wholly or in part out-



side the vulva; in the one case constituting the *prolapsus uteri* of writers, in the other the condition called *procidentia uteri*. These terms are so often used interchangeably that it is best to avoid them and to use the descriptive terms of complete and incomplete prolapse.

The causes, both predisposing and exciting, are the same in each of these divisions of simple prolapse, the difference between them being one solely of degree and not of kind. We may, therefore, study them together.

Advanced age, laborious occupation, habitual constipation, and childbearing, predispose this condition, whilst any cause which tends to increase the weight of the organ or to weaken its support will also prove an exciting factor.

The symptoms occurring in this prolapse are manifestly present either in a greater or less degree in the other two, and may be considered better in that form of prolapsus which this paper is meant particularly to describe.

The treatment consists in replacing the organ into its normal position and in sustaining it in the same by means of supports, in the shape of the various forms of pessaries in the market, which must be adapted to the needs of each particular case. The bowels should be carefully regulated, all heavy work and straining at stool avoided, astringent vaginal injections may be used with advantage, and rest in bed is often productive of good. Any complication which may exist, such as inflammation, ulceration, or hypertrophy must receive attention.

If the primary cause of the prolapse can be ascertained and remedied, the secondary results of the same can be the more successfully combated.

The general health must be improved. Tonics, such as strychnine, iron, and quinine should be given. Ergot is often useful. Sea-bathing is advised by many.

Where the above treatment fails, surgical procedures must be tried as a final resort.

Rupture of the perineum during parturition being a frequent starting-point in the production of prolapse of the uterus, it is essential to remedy this defect whenever found to exist. Numerous operations, having for their object the narrowing or constriction of the vaginal canal, have been resorted to by various operators, such as Sims, Emmet, Schröder, and Hegar.

Sims removes a V-shaped portion of the anterior wall of the vagina by means of curved scissors, and then brings the edges together by means of silver wire sutures. The cervix is meant to fit into the pouch thus formed.

Emmet closes the pouch by running a denuded strip, as a base to the triangle, across in front of the cervix uteri. Appreciating the difficulties involved in the execution of this operation, he has since simplified it by denuding two surfaces, about half an inch square, on either side of the cervix, and a little behind the line of its anterior lip, then removing a strip from the vaginal surface in front of the uterus, about one inch long by half an inch wide, and bringing together these three points, with the effect

of forming a fold in front of the cervix. Silver wire sutures are used in this operation, four or five to the inch. Schröder freshens an oval portion and secures adhesions by alternately deep and superficial sutures.

Hegar narrows the vagina by the removal of a V-shaped piece of mucous membrane from the posterior vaginal wall, the apex being carried up nearly to the cervix, the base ending at the vulva, which it includes.

The best of these operations is considered to be that of Emmet's, if there is no evident rectocele, or that of Hegar's if there is one, particularly if it drags upon the uterus.

Prolapse of the womb from hypertrophic elongation of the infra-vaginal portion of the cervix presents an entirely different condition of affairs from that we have just been discussing. It is the result of a hypernutrition of the part (Goodell). Emmet doubts the existence of such a lesion unless it be the result of a laceration of the uterine neck and os. That it exists, however, without this lesion as a productive factor, other competent judges bear testimony, amongst whom I might mention Dr. Goodell,¹ of this city, and Dr. A. W. Edis,² of London. The body of the uterus in this condition occupies its normal position, but the elongated cervix projects into, and occasionally fills to a great extent the whole length of the vagina, the os externum pro-

¹ Lessons in Gynecology, 3d ed., p. 212.

² Diseases of Women, including their Pathology, Causation, Symptoms, Diagnosis, and Treatment, 2d ed., p. 277.

jecting at, or even beyond, the vaginal outlet. This latter condition is, as a rule, either congenital or an exaggeration of a congenital condition, and is therefore found in multipara (Goodell).

Hypertrophic elongation of this portion of the cervix may arise in consequence of the process of involution not taking place properly; from the stretching of the uterus when adherent to an extra-uterine cyst (Edis); the presence of fibroid tumors dragging up the uterus as they grow above the pelvic brim, etc.

The treatment in these cases is essentially operative and will be treated of in the next and last form of prolapse to which the womb is subject, viz. (the so-called)

Prolapse of the womb from hypertrophic elongation of the supra-vaginal portion of the cervix. That this form of prolapse exists is doubted by many; yet it is admitted by the majority that a change of some sort does occur in the *supra-vaginal portion of the womb*, which is supposed to be an instance of elongated cervix, but in reality *is not in the cervix proper* but in the tissues of the body of the uterus. Emmet¹ goes so far as to say that instead of there being an enlargement of the cervix, actual atrophy of the same is the rule.

Let us at this point illustrate our further remarks by a case admitted into the University Hospital in the gynecological wards of Professor Goodell, January 4th of this year.

¹ Emmet's Principles and Practice of Gynecology, 2d ed., p. 485.

Mrs. E. G., aged forty-six years, a German. Always was healthy. Married in 1862. Menstrual periods had been regular since the age of fourteen, when they first started. Has had two children; the first was born March 14, 1863, the second, January 30, 1865; never had any miscarriages.

The trouble for which she sought help in the hospital came on after the birth of the second and last child; when, as she describes it, the womb descended until it gradually appeared outside of the body. This labor was a tedious one, owing to the early rupture of the waters and the large size of the child. It resulted in a slight tear of the perineum. She never felt like herself after this confinement. Suffered more or less from leucorrhœa, constant bearing-down feelings, a weakness in her back and loins, and other uterine symptoms, which she attributed to getting up and working too soon. Her housework, which she had formerly done, she now found impossible to continue.

Some years ago, as near as she can remember, a tumor began to protrude more and more from the vulva, which was preceded by painful micturition, so intense at times that the mere thought of emptying her bladder drove her wild with fear. Her physician, who was now consulted, replaced the tumor and advised an operation; but as she would not entertain the thought, he applied measures which temporarily lessened her suffering.

This state of affairs continued until the time when she made up her mind, at her physician's earnest solicitation, to seek relief by operation at the hospital.

Upon examination on admission, her condition was found to be a pitiable one. In walking she was obliged to straddle—wobble along as it were. The

tumor, which at first was easily reducible, and without pain, now caused her intense suffering if only touched. Micturition and defecation were both exceedingly difficult and painful; the former especially so. The urine was constantly dribbling away, and had excoriated the skin so much that it of itself was enough to make life miserable.

The vaginal examination revealed a boggy tumor protruding from the vulva, which was evidently the infra-vaginal portion of the cervix, clubbed, and apparently much thicker than normal, but not elongated. Professor Goodell's son, Dr. W. C. Goodell, made the first examination, and succeeded in passing into the bladder, not, however, without eliciting a cry of pain from the patient, a uterine sound, the point of which could readily be felt about three-quarters of an inch from the apex of the prolapsed tumor; demonstrating clearly the presence of a cystocele. A rectocele was also found. The question now arose as to what this tumor was. That it was a prolapsus of the womb was certain—palpation and inspection clearly showing that. But which of the three forms could it be? This could not be ascertained without measuring the uterine canal, which was now done, showing a length of near six inches. Certainly it could not be an inverted uterus or a simple descent. In the one case, there would have been no uterine cavity; and, in the other, the sound could not have shown the fundus to be high up in the pelvis and a uterine canal of over five inches. If it were a simple elongation of the vaginal cervix, it, and it alone, would have composed the tumor, and it could not have pushed forward and been hidden behind a covering of the vagina, as was the case in the history just recorded. Thus by exclusion, as well as by direct evidence, the tumor

was proven to be in the main composed of the so-called prolapse of the womb from hypertrophic elongation of the supra-vaginal portion of the cervix.

On the 7th of January the woman was prepared for the operation of amputation of the vaginal portion of the cervix by Hegar's method. Whilst the patient was being etherized, Professor Goodell explained to the students of the ward class present, the ways in which the removal of an infra-vaginal portion of the cervix caused a so-called supra-vaginal elongated portion of the uterus. He said it did good and promoted a cure : (1) By the hemorrhage occurring during the operation, which, depleting the womb, caused shrinkage ; (2) the suppuration necessary for the repair of the womb aided in establishing a retrogressive metamorphosis, not only of the womb and its thickened mucous investment, but also of the relaxed and subinvolted vagina, by means of which renewed strength and tonicity were given to the parts ; and, lastly, that the rest in bed and the lessened weight of the cervix tended to promote a restoration of the parts to their normal condition. The patient, now fully under the influence of the anæsthetic, was placed upon the table in the lithotomy position, on the left side, a Sims's speculum was introduced and given to an assistant to hold. The womb was brought fully into view and a sound, well curved, was passed into the bladder to determine its situation in reference to the tumor. The cervix was now transfixed, as high up as possible, with a long, straight skewer, and another one was placed at right angles to it. Behind these an elastic noose of rubber tubing was tied to control the hemorrhage, after which, the redundant portion of the cervix was removed in a cone-shaped piece. Stitches of silver wire were now used, extending from the os

uteri, as a centre or hub, to the outer portion of the cervix, the stitches resembling the spokes of a wheel. The sutures numbered eighteen, each of which was clamped by a perforated shot, as in the operation of lacerated cervix uteri.¹

The patient fully recovered from the operation without any untoward symptoms. A slight rise in temperature was noted for several days afterward, but it soon returned to normal. As a matter of course, the subsequent discharge was profuse and somewhat offensive. The stitches were left in for a long time in order to promote as far as possible the retrograde change. In this case, the operation did not produce a perfect cure, and when the patient was discharged on the 26th of February, much improved in health, and with a womb measuring only three inches in depth, she was advised to come back later and have performed Alexander's operation of shortening the round ligaments.

Having thus proven that there is a condition of prolapse of the womb which at least resembles a hypertrophic elongation of the supra-vaginal portion of the cervix, we may with advantage ascertain, if possible, the true state of affairs regarding the two points of dispute, viz.: Is this condition a true hypertrophy, and does the change which we know occurs (whatever its nature may be), affect the supra-vaginal portion of the cervix?

In reference to the first question—*Is this condition a true hypertrophy?*—I think I can clearly show that it must be answered in the negative. True hypertrophy implies a change of structure incapable of

¹ See "Lacerated Cervix Uteri as Treated at the University Hospital, by Professor William Goodell," in the N. Y. Medical Journal, March 2, 1889.

speedy resolution, which is not the case in the so-called hypertrophied elongation under discussion, for there the reduction in length is remarkably rapid when once commenced.

Again, if this were a true hypertrophy, would the line of demarcation between the affected supra- and the infra-vaginal portions of the cervix be as plainly marked, separated as it is, in theory only, by the vaginal wall? Most certainly not; for are they not two portions of one continuous structure?

Professor Goodell puts the question even more tersely when he says:

"Is it reasonable to suppose that a merely superficial muscular collar, such as the vaginal attachment, can act like a conjurer's ring, and, by a sort of magic, forbid deeply seated tissue-changes on one side of it from passing through to the other? Rather than be embarrassed by this difficulty," he says, "I much prefer to apply the aphorism of the schoolmen: *quod non habet, dare non potest*—a cause cannot communicate what it does not itself possess."

And he therefore concludes,

"that the elongation, if supra-vaginal, is not communicable, because it is not essentially hypertrophic."

He uses the term *essentially*, because he says:

"I am willing to concede some degree of growth, not primary, but secondary, caused by the irritation of another factor—traction—and by the stasis in the circulation induced by it."

Having thus, I hope, satisfactorily proven the fallacy of an affirmative reply to the first question, let me briefly consider the second and less important one, but one harder to comprehend—*Does the change affect the supra-vaginal portion of the cervix?* To understand clearly this phase of the subject,

allow me for a few moments to digress, in order to speak of the changes which occur in the structure of the cervix during both *menstruation* and *gestation*. In the former condition, according to the observations of J. Williams,¹ it appears that at each successive recurrence of *menstruation* a complete removal of the glandular part of the mucous membrane takes place by a process of softening and molecular disintegration which commences *close to, but not in the cervix*, or, at the os internum, and advances progressively toward the fundus during the remaining days of the flow of blood. This fact is of importance, as we shall see presently. In *gestation* the alterations are, of course, more extensive. Here the size, shape, and the position of the uterus, the form and dimensions of its cavity, and the character of its cervix are changed. It is with the latter portion that we have to do. During pregnancy the cervix loses its columns and rugæ; after parturition the enlarged muscular fibres of the uterus undergo a fatty degeneration; but the cervix is affected least by this change, owing to its firmer structure and the difference between the mucous membrane lining it and the cavity of the body of the uterus, between which a marked line of distinction exists, separating the two parts at the isthmus.

Upon these facts hinges the theory of Dr. Isaac E. Taylor, to whom the profession is indebted for first calling attention to the stability of the cervix uteri,² which I have shown is not effaced by gestation

¹ Quain's Anatomy, vol. ii. p. 468.

² Goodell's Lessons in Gynecology, 3d edition, p. 224.

or by parturition; nor does the molecular change which periodically occurs in the body of the uterus affect the membrane lining the cervix, but stops short at the line of demarcation between the two separate membranes lining the uterus, as alluded to above.

I quote from Prof. Goodell's book the conclusions which he draws from Dr. Taylor's investigations. He says:

"Dr. Taylor's testimony regarding the autopsic lesions of this disease shows conclusively, if I understood him correctly, that the elongation does not affect the glandular portion of the cervix, but that portion of the womb just above the os internum, at the junction of the body with the neck. In other words, it is the supra-glandular portion of the cervix—the isthmus—which is drawn out from the corpus, and at the expense of its thickness."

Granting that the above conclusions are simply theoretical, do not the anatomical and physiological facts amply bear out the deductions? I think they do most conclusively; and whilst admitting the possibility of a hypertrophy of the supra-vaginal portion of the cervix (not primary), I think the weight of evidence proves that the condition so often recognized by the name of hypertrophic elongation of the supra-vaginal portion of the cervix, is no more or less than a simple elongation or stretching of the body of the uterus just above and including the isthmus, when in the non-involuted womb the tissues are thick, soft, and ductile.¹

41 NORTH TWELFTH STREET.

¹ For a most interesting report of a case of prolapse of the uterus and bladder of fifteen years' standing, from which thirty vesical calculi were removed, see N. Y. Medical Journal, vol. xlvi. p. 737.

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